

ASSIGNMENT 5

Textbook Assignment: "JP-5 Afloat Flight Deck Systems and Operations (continued)," "Afloat MOGAS and Lube Oil Systems and Operations," and "Ashore Systems and Operations," chapters 5, 6, and 7, pages 5-16 through 7-8.

- 5-1. The checker requests the fuel load from an aircraft. The pilot responds with four fingers held vertically followed by three fingers held horizontally. How much fuel is in the aircraft?
1. 4,300 gallons
 2. 4,300 pounds
 3. 4,800 pounds
 4. 430 pounds
- 5-2. What is the minimum number of personnel required to fuel an aircraft?
1. Five
 2. Two
 3. Three
 4. Four
- 5-3. If you are fueling an aircraft in the hanger bay and there is no roving fire-fighting equipment manned, you must have a portable fire extinguisher nearby. What other equipment on the flight deck normally satisfies this requirement?
1. The flight deck sprinkler system
 2. The catapult steam smothering system
 3. The flight deck AFFF stations
 4. The flight deck P-16
- 5-4. What is the maximum time a fuel hose can go without sampling and testing and still be used to fuel aircraft?
1. 12 hr
 2. 24 hr
 3. 26 hr
 4. 32 hr
- 5-5. The grounding wire connecting sequence for the pressure fueling nozzle is from the
1. deck to the aircraft
 2. aircraft to the deck
 3. deck to the nozzle
 4. nozzle to the deck
- 5-6. Since most personnel in a refueling crew are experienced, squadron personnel are not required to be present when fueling aircraft.
1. True
 2. False
- 5-7. The flow control handle of the pressure refueling nozzle must be placed in the FULLY OPEN or FULLY CLOSED position. Why is the handle not allowed to "float" when refueling?
1. To prevent excessive wear on the aircraft adapter and the nozzle poppet
 2. To ensure the station will go into the defuel mode if an emergency occurs
 3. The time it takes to refuel the aircraft will double
 4. The possibility of contamination is increased
- 5-8. Who is responsible for ensuring the aircraft is fueled to the correct fuel load?
1. Crewleader
 2. Yellow shirt
 3. Air Boss
 4. Plane captain

- 5-9. Which of the following statements is/are correct concerning hot refueling?
1. No static samples can be taken
 2. Pilot-in-command changes are not permitted
 3. The aircraft cannot be refueled if it fails precheck
 4. All of the above
- 5-10. To defuel an aircraft, a written request must be submitted to and approved by whom?
1. V-4 Division Officer
 2. Air Boss
 3. Aircraft Handling Officer
 4. Control talker
- 5-11. Prior to defueling an aircraft, a sample must be drawn and tested for which of the following?
1. Flash point
 2. Free water
 3. Sediment
 4. All of the above
- 5-12. All personnel directly involved in fueling or defueling operations must wear the proper safety gear. This gear includes a cranial, goggles, jersey, gloves, and life vest. However, when the ship is not at flight quarters, only goggles are required.
1. True
 2. False
- 5-13. Whose job is it to check the fuel loads on incoming aircraft?
1. Crewleader
 2. Flight deck chief
 3. Nozzleman
 4. Checker
- 5-14. The aviation lube oil system is operated according to what system?
1. ALOSS
 2. LOOSS
 3. DLOSS
 4. CFASS
- 5-15. When taking on lube oil, the tanks should not be filled beyond what capacity?
1. 80%
 2. 85%
 3. 90%
 4. 95%
- 5-16. What is used to determine the frequency of maintenance required on the lube oil pump?
1. MDC
 2. PMS
 3. IRS
 4. PQS
- 5-17. The MOGAS system is operated according to what system?
1. CFOSS
 2. EOSS
 3. AFOSS
 4. ALOSS
- 5-18. The fundamental law of hydraulics is that any pressure or force applied to a confined liquid will be transmitted equally and undiminished in all directions regardless of the size of the container.
1. True
 2. False
- 5-19. Why does gasoline float on water?
1. Unit by unit, gasoline weighs less than water
 2. Unit by unit, gasoline weighs more than water
 3. Atmospheric pressure has more of an effect on water
 4. Water is lighter than gasoline
- 5-20. Gasoline systems are designed to be full at all times to prevent what occurrence?
1. The gasoline from overflowing
 2. Over-pressurizing the tanks
 3. The buildup of contaminants
 4. Explosive mixtures forming in air pockets

- 5-21. A saddle-type gasoline storage tank is actually a combination of how many tanks?
1. One tank and two cofferdams
 2. Two tanks and one cofferdam
 3. Two tanks and two cofferdams
 4. One tank and one cofferdam
- 5-22. What device connects the outer tank to the draw-off tank?
1. A sluice pipe
 2. A diffuser
 3. A cross connect
 4. The outer tank service riser
- 5-23. What gasoline tank is the first to be filled and last to be emptied of MOGAS?
1. Outer tank
 2. Cofferdam
 3. Service tank
 4. Draw-off tank
- 5-24. What is the cofferdam normally filled with for protection?
1. Water
 2. Gasoline
 3. CO₂ or N₂
 4. JP-5
- 5-25. When cofferdams are charged with nitrogen, what percentage of inertness must be maintained?
1. 25%
 2. 50%
 3. 75%
 4. 85%
- 5-26. When cofferdams are charged with carbon dioxide, what percentage of inertness must be maintained?
1. 25%
 2. 30%
 3. 35%
 4. 50%
- 5-27. The pressure-relief valve in the bypass line of the air escape riser is set at what psi?
1. 1 psi
 2. 2 psi
 3. 3 psi
 4. 4 psi
- 5-28. When the gasoline storage tanks are 100% full of seawater, what will the differential pressure gage read?
1. 100
 2. 2
 3. 0
 4. 4
- 5-29. What is unique about the float used in a MOGAS system TLI?
1. It sinks in water
 2. It sinks in fuel
 3. It does not contain a magnet
- 5-30. What device ensures back-pressure is maintained on the tanks to force gasoline to the suction side of the gasoline pumps?
1. A priming pump
 2. An elevated loop in the overboard discharge line
 3. A venturi installed in the discharge line
 4. The downsized discharge piping
- 5-31. What device is designed to break the syphoning effect of the overflow loop?
1. A swing check valve
 2. A sight glass
 3. A spectacle flange
 4. A vent line
- 5-32. To what pressure is the outer jacket of the double-walled piping pressurized with inert gas?
1. 12 psi
 2. 15 psi
 3. 3 psi
 4. 5 psi

- 5-33. What device is provided in the bellows of the double-walled piping to inspect for fluid inside the double-walls?
1. A bolted manhole cover
 2. An easy-open hatch
 3. Sight glasses
 4. Drain plugs
- 5-34. Constant pressure is maintained in the automatic pressure regulating system by balancing the spring tension in the pilot valve against what pressure?
1. The spring pressure in the main valve
 2. The ejector strainer spring pressure
 3. The venturi throat pressure
 4. The station discharge pressure
- 5-35. What device prevents chatter of the main valve in the pressure regulating system?
1. The venturi
 2. The ejector strainer assembly
 3. The recirculating line
 4. The reinforced diaphragm in the main valve
- 5-36. What is the function of the control valve in the automatic pressure regulating system?
1. To control discharge pressure
 2. To reduce the violence with which pump pressure is admitted to the main valve cover chamber
 3. To close the main valve during a sudden buildup in downstream pressure
 4. To direct fuel flow to the venturi
- 5-37. A recirculating line on the delivery side of the venturi tube returns what percent of the capacity of the booster pump?
1. 3%
 2. 5%
 3. 7%
 4. 10%
- 3-36. Why is a metal bellows used instead of fiber packing in the sylphon packless globe valve?
1. The fiber packing shrinks or deteriorates
 2. The metal bellows never requires replacement
 3. The fiber packing will hold a static charge
 4. The metal bellows will not corrode
- 5-39. The pressure relief valve for the cofferdam is set at what psi?
1. 7 psi
 2. 10 psi
 3. 14 psi
 4. 50 psi
- 5-40. How long after the fixed CO₂ system is activated will the CO₂ actually be discharged?
1. 5 sec
 2. 10 sec
 3. 15 sec
 4. 30 sec
- 5-41. When the CO₂ flooding system is activated, which of the following actions will NOT automatically happen?
1. A warning bell will ring in the space
 2. A visual alarm will show outside the space
 3. The electrically operated hatches will open
 4. The ventilation motors will stop
- 5-42. What is the maximum allowable capacity of MOGAS that can be brought onboard when the ship is alongside a pier?
1. 75%
 2. 80%
 3. 85%
 4. 95%

- 5-43. What is the normal maximum allowable tanktop pressure when filling the MOGAS tank?
1. 3 psi
 2. 23 psi
 3. 25 psi
 4. 45 psi
- 5-44. The MOGAS transfer pump is NOT to be started if the temperature in the discharge header exceeds how many degrees?
1. 75°F
 2. 90°F
 3. 95°F
 4. 100°F
- 5-45. How many changes of seawater are required to ensure proper flushing of the MOGAS tanks?
1. One
 2. Two
 3. Three
 4. Four
- 5-46. The filter/separator used on shore activities is designed to remove what percent of solid and water contaminants ?
1. 98% of all solids and 98% of all water
 2. 100% of all solids and 98% of all water
 3. 98% of all solids and 100% of all water
 4. 100% of all solids and 100% of all water
- 5-47. The manual water drains on the filter/separator are connected to what component(s)?
1. A recirculation line going back into the tank
 2. A recovery system
 3. The shore activity's sewer drain lines
 4. The fuel monitor
- 5-48. Which of the following locations requires a filter/separator?
1. The suction side of transfer pumps
 2. The storage tank to storage tank transfer lines
 3. The water drain line
 4. The supply piping from the storage tanks to aircraft refueler truck fill stands
- 5-49. Fuel quality monitors have fuses installed inside. What part of the fuse absorbs water?
1. The paper pleat
 2. The sensing washers
 3. The fiberglass core
 4. The paper plug
- 5-50. At least how long must fuel maintain contact with the metal walls of a relaxation chamber?
1. 1 min
 2. 5 min
 3. 30 sec
 4. 45 sec
- 5-51. All hoses used on shore activities should meet which of the following requirements?
1. Collapsible
 2. Non-collapsible
 3. 25 feet in length
 4. Equipped with a continuity wire in the center of the hose
- 5-52. The hose end pressure regulator installed with the nozzle assembly is set for what maximum psi?
1. 45 psi
 2. 50 psi
 3. 55 psi
 4. 60 psi
- 5-53. The loading systems on a loading rack are approved for multiproduct use.
1. True
 2. False

5-54. Above-ground tanks must be surrounded by an enclosure capable of holding the entire capacity of the tank, plus how much freeboard?

1. 1 ft
2. 2 ft
3. 5 ft
4. 7 ft

5-55. The transfer line on a shore activity is 8 inches in diameter. The letters identifying the product are required to be what size?

1. 1 in.
2. 2 in.
3. 3 in.
4. 4 in.